No nighthawk dived or flew erratically as in normal foraging, although individuals did circle back to regain their previous positions. During the approximately 10 minutes of flying in the rain, the flock remained in the same area. When the rain slackened the birds all flew off to the west.

We interpret these observations as aerial rain bathing. The ruffled plumage and spread rectrices may have facilitated feather soaking. The quick wing beats may have functioned to shake water off the wings. Certainly, the birds were not foraging; we doubt that any insect could have remained aloft in the heavy rain. In addition, none of the aerial movements resembled any described display behavior. We heard no calling when we ventured outside the building.

Many birds bathe in rain or wet foliage. No doubt characteristics of birds and their habitats affect the distribution of this form of bathing. Birds that are poorly adapted for standing in water because of short tarsi or weak legs, or that are unable to swim, probably bathe in rain or wet foliage. Birds that live where standing water is inaccessible, or where rain or dew are frequent also probably bathe in rain or wet foliage. GEW once watched a captive frogmouth, *Podargus* sp., a rain-forest bird with short tarsi and weak legs, bathe in the falling spray of a garden hose. The posture of rain-bathing birds "with feathers ruffled, wings fully extended horizontally, and tail spread" (Simmons 1985) certainly characterized the nighthawks we watched, and supports our conclusion that they were bathing in the rain.

Strong flying land birds such as kingfishers and tyrant flycatchers bathe by plunging into the surface of standing water. Simmons (1985) described "flight bathing on the wing by a series of dips and rises," and gave as examples swifts and swallows. He further stated that "highly aerial seabirds, such as frigatebirds and certain terns, are solely flight-bathers." By the context we suspect Simmons is referring to dips *into water* when describing flight-bathers, but we are uncertain. Certainly the several taxa of land birds and seabirds he listed include likely candidates for aerial rain bathing. Among other likely candidates are hummingbirds. Stoner (Condor 49:36, 1947) reported an Anna's Hummingbird (*Calypte anna*) repeatedly flying through a stream of water from a garden hose, which may be interpreted as bathing while in flight.—Kevin J. McGowan and Glen E. Woolfenden, *Dept. Biology, Univ. South Florida, Tampa, Florida 33620. Received 13 Dec. 1985, accepted 6 May 1986.* 

Wilson Bull., 98(4), 1986, pp. 613-614

Green-backed Heron baits fish with insects.—On 22 August and 8 September, 1985, we observed at least one Green-backed Heron (*Butorides striatus*) apparently attempt to lure fish with live mayflies (Ephemeridae) at the Ouachita River in Montgomery County, Arkansas. On 3 separate occasions, in 3 locations, we watched a heron capture a live mayfly and place it in the water. After the heron watched the mayfly for several seconds from a crouched, standing posture (Hancock and Kushlan 1984), it retrieved the live insect and placed it in a new location in the water a few feet away. This pattern was repeated 10–20 times for up to 30 min before the heron abandoned the mayfly and flew out of sight. We did not witness a heron capture a fish while baiting.

Kushlan (1978) described baiting behavior as placing any material that attracts prey in the water. Lovell (1958), Sisson (1974), and Norris (1975) previously have documented Green-backed Herons baiting fish with bread and feathers. To our knowledge, this is the first report of this species using an insect as bait.

Insects are frequent prey of Green-backed Herons in late summer (Niethammer and Kaiser

1983). If mayflies are natural prey of Green-backed Herons, our observations carry intriguing implications regarding optimal foraging theory. Theorists predict that, when prey densities are high, a predator will usually select the more profitable of 2 prey when given a choice between them (see Krebs et al. 1983 for review). In the present case, the Green-backed Heron risked one potential prey item in an attempt to secure larger, presumably more profitable prey. Mayflies were widespread and abundant during our observation period, and baiting with mayflies was probably a "low-cost" behavior.

Acknowledgments.—We thank K. L. Bildstein, W. E. Davis, Jr., and J. A. Kushlan for their helpful comments.

## LITERATURE CITED

HANCOCK, J. AND J. A. KUSHLAN. 1984. The herons handbook. Harper and Row, New York, New York.

Krebs, J. R., D. W. Stephens, and W. J. Sutherland. 1983. Perspectives in optimal foraging. Pp. 165–216 *in* Perspectives in ornithology (A. H. Brush and G. A. Clark, Jr., eds.). Cambridge Univ. Press, Cambridge, England.

Kushlan, J. A. 1978. Feeding ecology of wading birds. Pp. 249–297 in Wading birds (A. Sprunt, IV, J. C. Ogden, and S. Winckler, eds.). Natl. Audubon Soc. Res. Rep. 7.

LOVELL, H. B. 1958. Baiting of fish by a Green Heron. Wilson Bull. 70:280-281.

NIETHAMMER, K. R. AND M. S. KAISER. 1983. Late summer food habits of three heron species in northeastern Louisiana. Colonial Waterbirds 6:148–153.

Norris, D. 1975. Green Heron goes fishing. Fla. Wildl. 29:16-17.

Sisson, R. F. 1974. Aha! It really works. Natl. Geogr. Mag. 145(1):142-147.

CHARLES R. PRESTON, Dept. Biology, Univ. Arkansas at Little Rock, Little Rock, Arkansas 72204; HERSHEL MOSELEY AND CAROLYN MOSELEY, 11123 Shannon Hills Dr., Mabelvale, Arkansas 72103. Received 31 Jan. 1986, accepted 1 May 1986.

Wilson Bull., 98(4), 1986, pp. 614-615

Great-tailed Grackle kills Barn Swallow in flight.—On the causeway from Port Isabel to South Padre Island, Cameron County, Texas, at dusk on 9 April 1985 I noticed a flock of 8–12 Barn Swallows (*Hirundo rustica*) flying 1–4 m above the mudflats near the end of the bridge and just south of it. As I watched, two female Great-tailed Grackles (*Quiscalus mexicanus*) flew up behind this flock. One of the grackles struck one of the swallows and drove it to the ground. The grackle then pecked the swallow and dragged it by one wing for ca 0.5 m as the other grackle watched. Both grackles then flew away.

After the grackles departed, 6 swallows remained flying over the mudflat at 18:00 h. I then retrieved the dead swallow (USNM 599917) which was autopsied and prepared by Joe T. Marshall. The bird was a male. A hemorrhage was present on the left frontal bone but the skull was unbroken in this area. There was a gaping hole behind the left ear. Although the grackle had pecked at the breast several times there was no obvious injury in this area.

Grackles (*Quiscalus*) are frequent predators of other bird's eggs and young (Bent 1958), but rarely have been reported killing adults. Great-tailed Grackles have killed adult House Sparrows (*Passer domesticus*) (Hansen 1976), and Common Grackles (*Q. quiscula*) have frequently been reported killing this species (Poor 1946, Mayfield 1954, Taylor 1958). Common Grackles have been reported killing a Dickcissel (*Spiza americana*) (Baird and